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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/751,466

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Jae-Ryong Park

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EXAMINER

PATEL, RITA RAMESH

ART UNIT

PAPER NUMBER

1792

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/751,466	Applicant(s) PARK ET AL.	
	Examiner RITA R. PATEL	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Applicant's Arguments / Amendments

This Office Action is responsive to the amendment filed on 3/27/08. Claims 1-6 are pending. Claims 8-10 and 23-27 have been canceled. Claim 1 has been amended.

Applicant's arguments have been considered, but are not persuasive. Thus, claims 1-6 are finally rejected for the reasons of record.

Applicant has canceled claims 8-10 and incorporated the claim language of claim 8 into claim 1. Claim 1 is amended to include the following: "the drain hole comprises a plurality of rows of drain holes provided around an edge of the front part of the rotary drum". Presently, the Hashiba reference relied upon teaches a drum 42 (rotary drum) which illustratively has ventilation holes 45. Ventilation holes 45 are formed completely around the peripheral walls of the drum 42, such that when drum 42 is rotated, the water in the drum can escape and drain out to the outer tank 22 (water tub). Most conventional washing machines are formed with Hashiba's drum and tub system, such that the rotating drum drains water into the tub. These holes 45 as seen in the illustrations of Hashiba are formed around the entire periphery of the drum 42. There are holes 45 formed on a front half and a back half of the drum 42; if one were to split the drum into a front half and back half, both these halves would have holes formed consistently on the drum 42 and thus reading on Applicant's claims for "drain holes provided around an edge of the front part of the rotary drum". The holes formed about

the front-most part of the rotary drum 42 read on Applicant's claims for an "edge of the front part of the rotary drum".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Hashiba et al. herein referred to as "Hashiba" (Publication No. 2001-149685) and further in view of Mueller et al. herein referred to as "Mueller" (US Patent No. 5,507,053).

Hashiba teaches a tank 33 (water tub) and drum 42 (rotary drum) that is illustrated in the representative drawing to be inclined within a horizontal drum washing machine. The washing machine includes an exhaust hole 95 and has an internal wall that is immediately below the inclined surface of the wash tank and drum. Hashiba teaches a circulation unit which circulates liquid collected in a dehumidifier 47 then sent to a blower 48, next to heater 49, travels through duct 50 (water circulation pipe), and is then returned to the drum 42. Also, Hashiba discloses a washing heater 73 (heater), as well as, a drain valve 82 (control valve) that is connected to a motor 88 by way of a valve rod 94 which in sum read on applicant's claim for a drain unit. The rotating axis 41c of the motor is inclined at a first angle which faces an inner surface of the door of the Hashiba washing machine.

There are ventilation holes 45 formed on a front half and a back half of the drum 42; if one were to split the drum into a front half and back half, both these halves would have holes formed consistently on the drum 42 and thus reading on Applicant's claims for "drain holes provided around an edge of the front part of the rotary drum". The holes formed about the front-most part of the rotary drum 42 read on Applicant's claims for an "edge of the front part of the rotary drum".

Hashiba teaches the claimed invention except fails to go into detail on how the recirculated liquid is specifically disseminated back into the wash tub, however, Mueller teaches a washing machine with a spray nozzle 78 connected to its recirculation system for ensuring the clothes are thoroughly wetted. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this Mueller spray nozzle feature to Hashiba's recirculation system because effective and thorough re-wetting of laundry during recirculation is known in the art for achieving optimal use of the washing liquid, saving money on supply resources, and rinsing/washing laundry therein efficiently to get very clean laundry.

The representative illustration provided by Hashiba shows an inner drum 42 within a tank 33 that may arguable by formed such that the back-end of the drum (end closer to the shaft) embodies a smaller diameter than the opening of the drum 42; however, it is a bit unclear by the Hashiba drawings the exact shape of the inner drum 42. Mueller, however, illustrates in Figure 2 an inner rotating basket 36 that embodies a larger inlet diameter and decreases in diameter towards the traversal of the back part of the tub closest to the shaft; this reads on applicant's claims for "a sidewall part which is

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closed and extends between the rear part and the front part wherein an inner diameter of the sidewall part increases along a direction from the rear part to the front part to allow an internal surface of the sidewall part to be inclined". It would have been obvious to one of ordinary skill in the art at the time of the invention to use an inner tub with a decreasing diameter size to provide a stronger/more centered centrifugal force during rotation and also for aesthetic purposes-having a larger inlet opening allows the user an easier way to deposit and remove clothes from the machine. Choice in aesthetic designs was held to have been obvious. *St. Regis Paper Co. v. Beemis Co. Inc.* 193 USPQ 8, 11, (1977); *In re Harza* 124 USPQ 378 (CCPA 1960).

Finally, the Hashiba reference teaches the claimed invention except fails to go into detail regarding any potential detergent supply unit, and although it is at once envisaged that the washing machine of Hashiba has a water supplying unit, the Hashiba reference fails to specify in detail the feed lines for such an apparatus. However, the Mueller reference teaches a detergent dispenser 54 in connection with supply inlets 40, 42 having control valves 44, 46 as shown in Figure 8 which attach to the washing machine at the front part of the inlet door to respectively feed detergent and water to the tub. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the detergent dispenser and supply line features of Mueller in Hashiba because it is commonly known in the art to use these features in washing machines; washing machines are known to dispense controlled amounts of desired detergents during washing processes, as well as dispense controlled amounts of desired supply

liquids during washing. Supply fluids and detergent are known in the art of washing machines to be used to fuel the machine and clean laundry therein properly.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RITA R. PATEL whose telephone number is (571)272-8701. The examiner can normally be reached on M-F: 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

/Rita R. Patel/
Examiner, Art Unit 1792